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EXAMINER

VALENTI, ANDREA M

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/769,076

Applicant(s)

KRYSIK ET AL.

Examiner

Andrea M. Valenti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30,32,36-42 and 45-53 is/are pending in the application.
- 4a) Of the above claim(s) 1-25,36,37,39-42,45,46,48,49,51 and 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-30,32,38,47,50 and 52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 50 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for claims 26-30, 32, 38, 47, and 52 given the broadest and reasonable interpretation of the specification these claims pertain merely to a mulch that is colored as an indicator and does not involve any chemical reactions (specification page 10 line14-15), the specification does not reasonably provide enablement for claim 50. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with claim 50. The specification does not disclose what makes the color change or fade, is it a chemical process? How does the chemical process work and what are the chemicals and reactions involved?

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 26, 27, 28, 29, 30, 52 are rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 4,932,156 to Underwood or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 4,297,810 to Hansford in view of U.S. Patent No. 2,526,938 to Davis et al.

Regarding Claims 26-30 and 52, Underwood teaches a colored mulch product (Underwood abstract line 1) wherein the color fades or disappears (Underwood abstract line 2) in response to a lack of nutrient or fertilizer in the mulch (Underwood abstract line 4 "ambient weather conditions"; the examiner views "nutrient" as water and when it rains, rain is an element of ambient weather conditions, objects inherently tend to appear vibrant. As the object dries (i.e. as it losses the nutrient water) it will inherently fade).

Regarding Claims 26, 28, 29, 30 and 52, Hansford teaches a colored mulch (Hansford 2 line 14) and the importance of moisture (Hansford Col. 2 line 63) to the plants thus indicating general knowledge in the field of the plant husbandry that it is desirable to monitor the moisture conditions and to provide adequate moisture to ensure healthy development and that it is known to color mulch. Hansford is silent on the mulch fading in response to a lack of nutrient/chemical (i.e. water). However, Davis teaches a colorant additive that changes color as an indicator that water (i.e. nutrient) is present or absent (Davis Col. 1 line 35-41). It would have been obvious to one of ordinary skill in the art to modify the teachings of Hansford with the teachings of Davis at the time of the invention for the advantage of the known ability to monitor the moisture content as taught by Davis to ensure healthy growth and development of

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plants. The modification is merely the selection of a known alternate equivalent selected for the known advantage of its indicator properties. It would be obvious to one of ordinary skill in the art to perform the method step to add water (i.e. chemical) to the mulch when the mulch appears to have a low moisture concentration.

Regarding Claim 27, Hansford as modified teaches fertilizer and this inherently teaches nitrogen, phosphorous, and potassium fortifiers (Hansford Col. 5 line 4)

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,297,810 to Hansford in view of U.S. Patent No. 2,526,938 to Davis et al as applied to claim 26 above, and further in view of U.S. Patent No. 5,734,167 to Skelty.

Regarding Claim 32, Hansford as modified teaches coloring the mulch, but is silent on the dye is florescent. However, Skelty teaches it is old and notoriously well-known to dye agricultural products with florescent dye allowing the mulch to glow in the dark (Skelty Col. 1 line 35-45). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Hansford with the teachings of Skelty at the time of the invention since the modification is merely the selection of a known alternate coloring for the advantage of enabling safe night time agricultural operations as taught by Skelty (Skelty Col. 1 line 1-26).

Claims 26-30, 38 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,324,781 to Stevens in view of U.S. Patent No. 5,387,745 to Brendle.

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Regarding Claims 26, 28, 29, and 30, Stevens teaches a colored mulch product (Stevens abstract line 2) consisting essentially of: a material comprising a fiber cellulose, clay, loam, sand, and/or a combination of same; a binding agent (Stevens Col. 2 line 2); and a dye and/or pigment (Stevens Col. 6 line 35). Stevens teaches a dye, but is silent on the dye **indicates** to a user environmental conditions of the soil where said mulch is placed; the dye **indicates** to a user the acidity of said soil; the dye **indicates** to a user the moisture content of said soil; or the dye **indicates** to a user the chemical content of said soil.

However, Brendle teaches that is old and notoriously well-known to use color (i.e. dye and/or pigment) in agricultural applications as an indicator, a label, a marker. Brendle is cited **merely to teach** that is known **to use color as an indicator of a particular characteristic of a parcel of land**. Purely as an example, in the case of Brendle, it is an area of land that receives a coating of a chemical composition that was pre-treated with a colorant (Brendle abstract and Col. 2 line 21-40). In other words, Brendle can apply to teaching an area of land that receives a coating of mulch composition that was pre-treated with a dye/pigment. It would have been obvious to one of ordinary skill in the art to modify the teachings of Stevens with the teachings of Brendle at the time of the invention for the advantage of ease of distinction and the known advantage that the presence of color has been found that misapplications of substances is more easily avoidable as taught by Brendle (Brendle Col.2 line 58-60) (i.e. distinction of knowing where a pesticide has been applied, knowing where a particular species/variety of plant has been planted, etc). It is generally knowledge to of

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one of ordinary skill in the art that different plant varieties require different soil conditions. Thus, it would have been obvious to one of ordinary skill in the art to use a green colored mulch to distinguish where grass seed was plant and a red colored mulch to distinguish where tomatoes were planted. These two colors would inherently indicate different soil conditions since grass and tomato plants require different levels of moisture, different levels of acidity, and different levels of fertilization. Using color as an indicator/marker of any property, process, or treatment is an obvious modification for one of ordinary skill in the art as supported by Brendle.

Regarding Claim 27, Stevens as modified teaches the mulch comprising; nitrogen, phosphorous, and potassium fortifiers (Stevens abstract last line).

Regarding Claim 38, Stevens as modified teaches the mulch is the same or similar color of an actual plant, flower, fruit, or vegetable of a seed planted with the mulch (Stevens Col. 6 line 37).

Regarding Claim 52, Stevens as modified teaches a method of placing colored mulch on top of soil; inherently changing the colors of the mulch based on the condition of the soil since when it rains, rain is an element of ambient weather conditions, there is more water in the soil objects tend to appear vibrant, but as the object dries (i.e. as it loses the nutrient water) it will inherently fade. Thus the colors inherently change based on the moisture conditions of the soil.

Stevens is silent on adding chemicals to the soil based on the color of the mulch. However, on one hand, it is old and notoriously well-known in the art of plant husbandry to observe and test soil conditions to see if they meet the desired parameters. It would

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have been obvious to one of ordinary skill in the art, at the time of the invention, if they observed that the mulch was faded in appearance because of reduced moisture levels, that one of ordinary skill in the art would obviously know to add the chemical (i.e. water) to improve the moisture conditions depending on the needs of plant varieties located in that area. On the other hand, it is old and notoriously well-known to use color as an indicator as discussed in the preceding paragraphs. If grass was planted with the green colored mulch it would be obvious to one of ordinary skill in the art to add chemicals to that area to meet the needs of grass.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,324,781 to Stevens in view of U.S. Patent No. 5,387,745 to Brendle as applied to claim 26 above, and further in view of U.S. Patent No. 5,734,167 to Skelty.

Regarding Claim 32, Stevens as modified teaches coloring the mulch, but is silent on the dye is fluorescent. However, Skelty teaches it is old and notoriously well-known to dye agricultural products with fluorescent dye allowing the mulch to glow in the dark (Skelty Col. 1 line 35-45). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Stevens with the teachings of Skelty at the time of the invention since the modification is merely the selection of a known alternate coloring for the advantage of enabling safe night time agricultural operations as taught by Skelty (Skelty Col. 1 line 1-26).

Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,067,140 to Thomas in view of U.S. Patent No. 5,387,745 to Brendle.

Regarding Claim 47, Thomas teaches a colored mulch product (Thomas abstract) comprising: a material comprising a fiber cellulose (Thomas abstract first line), clay, loam, sand, and/or a combination of same; a binding agent (Thomas Col.1 line 30 “wetting agent” and Col. 4 line 35-41); and a dye and/or pigment (Thomas Col. 1 line 35) produced by a lifting and tumbling agglomeration operation (Thomas Col. 2 line 65-66. Thomas teaches adding fertilizer to the mulch mixture (Thomas Col. 1 line15). Thomas is silent on the dye indicates to a user the environmental conditions of the soil where the mulch is place. However, Brendle teaches the use of dye/color as indicator that a chemical was applied to a particular area (Brendle abstract) e.g. fertilizer (Brendle Col. 1 line 21). It would have been obvious to one of ordinary skill in the art to modify the teachings of Thomas with the teachings of Brendle at the time of the invention to prevent damaging overlapping of treatment of an area (Brendle Col. 1 line 26).

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,324,781 to Stevens in view of U.S. Patent No. 5,697,984 to Swatzina et al.

Regarding Claim 50, Stevens teaches a colored mulch product wherein the color, but is silent on the mulch product fades or disappears in response to a lack of fertilizer in the mulch. Stevens teaches the mulch product is made up of fertilizer (Stevens abstract last sentence), mulch plus fertilizer makes a mulch product. Swatzina teaches it is old and notoriously well-known to color fertilizer (e.g. red fertilizer Swatzina). One

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of ordinary skill in the art would be motivated to modify the teachings of Stevens with the teachings of Swatzina at the time of the invention for a desired aesthetic design. Stevens as modified by Swatzina, i.e. the selection of red fertilizer, would inherently teach that as the red disappears or fades from the mulch the fertilizer is disappearing too.

Response to Arguments

Applicant's arguments with respect to claims 47 and 50 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 22 May 2006 have been fully considered but they are not persuasive.

Examiner maintains that the specification is not enabling for claim 50 since it does not disclose what makes the color change. One of ordinary skill in the art would ask is it a chemical process, how does the chemical process work, what chemicals and reactions are involved? Claim 50 merely reads that the color changes in response to a lack of fertilizer. The claim makes no reference to acidity/base/pH so why would one of ordinary skill in the art assume that it functions like litmus paper? Furthermore, the specification makes not mention of litmus paper. Applicant claims in the arguments that it is the use of chemicals on a mulch that is not known in the art, but applicant has not identified what these chemicals are. One of ordinary skill in the art would not be able to make this product based on the current disclosure and thus the examiner maintains that it is not found to be enabling.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, there is sufficient motivation found in the references themselves and also based on knowledge generally available to one of ordinary skill in the art. Hansford clearly teaches that colored mulch is applied around plants to hold in moisture (Hansford Col. 2 line 63; Col. 3 line 5; Col. 5 line 34-35). It is general knowledge to one of ordinary skill in the art that moisture levels are an important parameter for growing healthy plants and different plant varieties require different moisture levels. Davis teaches a moisture indicator. It would have been obvious to one of ordinary skill in the art to modify the teachings of Hansford with the moisture indicator of Davis to closely monitor moisture levels to enhance plant development/germination (ergonomic ease of monitoring moisture levels).

Examiner maintains that Steven teaches a mulch that contains a coloring agent. Brendle teaches general knowledge of one of ordinary skill in the art of plant husbandry to mark a portion of land with a coloring agent to indicate a particular chemical has been applied. It would have been obvious to one of ordinary skill in the art to utilize a coloring agent as an indicator.

Regarding claim 38, Stevens teaches the color green which inherently is the same color of an actual plant.

Claim 52 merely states that chemicals are added to the soil based on the color of the mulch. Examiner maintains that it would have been obvious/inherent for one of ordinary skill in the art to observe a dry/faded appearance of the mulch color and add water (i.e. chemical) to the soil.

It is the examiner's position that moisture level is an environmental condition, thus when the color of Underwood begins to change because of exposure to rain i.e. ambient weather conditions it is inherently indicating an environmental condition. Moisture level and fertilizer are inversely proportional to each other. As the moisture level increase the fertilizer will become diluted, dissipate, run-off. In other words, the change in mulch color of Underwood inherently functions as an indicator. There is no structural difference to Underwood, thus it is capable of performing the function as an indicator. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function alone. Since the structural limitations have been met by the prior art, the Examiner has reason to believe that the function limitation can be performed by the prior art structure. See MPEP 2114.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

Underwood also inherently indicates the acidity. Once again, the acidity will depend on the moisture level and the level of acidity in the rain water. Applicant has merely claimed that it indicates the acidity, but has not claimed how this is done, what chemicals are involved, what range is desired, etc. Thus, examiner maintains that Underwood inherently teaches that acidity is indicated as it relates to moisture.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 571-272-6895. The examiner can normally be reached on 7:00am-5:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Andrea M. Valenti
Primary Examiner
Art Unit 3643

25 July 2006